CLAIMS

We claim:

1. A projectile shooting toy comprising:

a body housing;

a drive motor supported by the body housing;

an operating trigger having a first unactivated position and a second activated position;

control circuitry operably coupled to the operating trigger and the drive motor wherein the control circuitry activates the drive motor when the operating trigger is moved to the second position; and

a projectile firing apparatus, including:

a projectile cannon mounted on the body housing and having:

a cannon housing having an inlet at a first end and an outlet at a second end,

a firing ram operably coupled to the motor, and

a projectile retaining flap disposed within the projectile cannon, the projectile retaining flap being movable between a first retaining position and a second release position and being biased into the retaining position by a spring.

2. The projectile shooting toy of claim 1, wherein movement of the trigger to the activated position causes the drive motor to move the firing ram from a first position to a second position and then abruptly release the firing ram to return to the first position, thereby striking any projectile held in the cannon housing by the projectile retaining flap in the first retaining position and shoot the projectile from the cannon housing, the projectile retaining flap being momentarily moved into the release position by the shot projectile.

3. The projectile shooting toy of claim 1, further comprising an interior portion forming a projectile delivery tube.

4. The projectile shooting toy of claim 3 wherein:

the projectile delivery tube has an inlet disposed on an upper portion of the body housing;

the operating trigger includes a cammed surface;

the projectile cannon is pivotally mounted on the body housing and has a first stored position and a second deployed position; and

movement of the trigger to the activated position causes the projectile cannon to pivot from the stored position to the deployed position under action of the cammed surface allowing the projectile to move from the projectile delivery tube into the inlet of the cannon housing.

5. The projectile shooting toy of claim 4 further comprising a loading ram disposed adjacent the cannon housing inlet and operably coupled to the drive motor, the motion of loading ram being coupled with the motion of the firing ram to prevent a second projectile disposed in the projectile delivery tube from moving into a firing position during operation of the firing ram.

6. The projectile shooting toy of claim 1 further comprising an electric power source supported by the body housing, wherein the drive motor receives power from the electric power source.

7. The projectile shooting toy of claim 6 further comprising:

a sound generator operably coupled to the control circuitry;

a memory operably coupled to the control circuitry;

an amplifier operably coupled to the sound generator;

a speaker operably coupled to the amplifier,

wherein when the trigger is moved to the activated position, the control circuitry selects from the memory stored data corresponding to a sound passage and causes the sound passage to be audiblized via the speaker.

8. The projectile shooting toy of claim 6 further comprising at least one light operably coupled to the control circuitry and receiving power from the electric power source.

9. The projectile shooting toy of claim 8 wherein the control circuitry causes the at least one light to be illuminated when the trigger is moved to the activated position.

10. The projectile shooting toy of claim 1 further comprising a movably mounted element and a power transmission operably coupling the drive motor and the movably mounted element.

11. The projectile shooting toy of claim 1 wherein the toy is a vehicle.

12. The projectile shooting toy of claim 11 wherein the toy is a helicopter.

13. The projectile shooting toy of claim 12 further comprising a movably mounted element and a power transmission operably coupling the drive motor and the movably mounted element wherein the movably mounted element is a rotor assembly.

14. A projectile shooting toy comprising:

a body housing;

a drive motor supported by the body housing;

control circuitry operably coupled to the drive motor;

a first trigger operably coupled to the control circuitry;

a second trigger operably coupled to the control circuitry;

a projectile firing apparatus, including:

a projectile cannon mounted on the body housing and having:

a cannon housing having an inlet at a first end and an outlet at a second end, and

a firing ram operably coupled to the motor; and

a movably mounted element and a power transmission operably coupling the drive motor and the movably mounted element;

wherein activation of the first trigger causes the control circuitry to activate the drive motor to move the firing ram from a first position to a second position and then abruptly release the firing ram to return to the first position, thereby striking any projectile held in the cannon housing, and

wherein activation of the second trigger causes the power transmission to drive the movably mounted element.

15. The projectile shooting toy of claim 14, wherein the toy is a helicopter.

16. The projectile shooting toy of claim 15, wherein the movably mounted element is a rotor assembly.

17. The projectile shooting toy of claim 14, further comprising a third trigger.

18. The projectile shooting toy of claim 17, further comprising:

at least one light;

a sound generator operably coupled to the control circuitry;

a memory operably coupled to the control circuitry;

an amplifier operably coupled to the sound generator;

a speaker operably coupled to the amplifier,

wherein when the third trigger is activated, the control circuitry selects from the memory stored data corresponding to a sound passage and causes the sound passage to be audiblized via the speaker and also causes the at least one light to be illuminated.

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